



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/627,253
Source: IFWO
Date Processed by STIC: 1/4/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 4B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/629,253

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 ☐ Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 ☐ Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 ☐ Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 ☐ Variable Length Sequence(s) 371-372 contain n's or Xaa's, representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 ☐ PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 ☐ Skipped Sequences
 (OLD RULES) Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 ☐ Skipped Sequences
 (NEW RULES) Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 ☐ Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 ☐ Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

- 11 ☐ Use of <220> Sequence(s) ____ missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 07/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 ☐ PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 ☐ Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/627,253

DATE: 01/04/2004

TIME: 10:35:10

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\01042004\J627253.raw

3 <110> APPLICANT: Ulrich Brinkmann
 4 Sven Hoffmeyer
 5 Esther Mornhinweg
 7 <120> TITLE OF INVENTION: Polymorphisms in the human gene for the multidrug
 resistance-associated
 8 protein 1 (MRP-1) and their use in diagnostic and therapeutic applications
 10 <130> FILE REFERENCE: VOS-42 CON
 12 <140> CURRENT APPLICATION NUMBER: US 10/627,253
 C--> 13 <141> CURRENT FILING DATE: 2003-07-24
 15 <150> PRIOR APPLICATION NUMBER: WO 02/059142 A2
 16 <151> PRIOR FILING DATE: 2002-01-25
 17 <150> PRIOR APPLICATION NUMBER: EP 01 10 1651.6
 18 <151> PRIOR FILING DATE: 2001-01-26
 20 <160> NUMBER OF SEQ ID NOS: 405
 22 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

5611 <210> SEQ ID NO: 371
 5612 <211> LENGTH: (52) 51 shown
 5613 <212> TYPE: DNA
 5614 <213> ORGANISM: Artificial DNA Sequence
 5616 <220> FEATURE:
 5617 <221> NAME/KEY: source
 5619 <223> OTHER INFORMATION: /note="Description of Artificial DNA Sequence: sequence of
 table 3"
 5621 <220> FEATURE:
 5622 <223> OTHER INFORMATION: n = gcc gcc gcc or deleted OK
 5624 <400> SEQUENCE: 371
 E--> 5625 tccctgcgcc gccgcgcgcg ccgcgcgcgc cgcgcgcgcg naggcgtag cg
 5628 <210> SEQ ID NO: 372
 5629 <211> LENGTH: (52) 51
 5630 <212> TYPE: DNA
 5631 <213> ORGANISM: Artificial DNA Sequence
 5633 <220> FEATURE:
 5634 <221> NAME/KEY: source
 5636 <223> OTHER INFORMATION: /note="Description of Artificial DNA Sequence: sequence of
 table 3"
 5638 <220> FEATURE:
 5639 <223> OTHER INFORMATION: n = gcc gcc gcc or deleted
 5641 <400> SEQUENCE: 372
 E--> 5642 cgctagcgct nggcggcggc gccgcgcgcg gccgcgcgcg cggcgcagg ga
 group of 9

Does Not Comply
Corrected Diskette Needed

pp1-2,4

variable length not permitted - see item 5 on Error
summary sheet

(52) 51

see item 5 on Error summary sheet

(52) 51

PSI: all bases MUST be in lower-case letters

10/627,253

2

<400> 405
ccgcgcgcgc gggcg

15

??

??

(...Continued)

(Continued...)

delete at end of file

112

3

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/627,253

DATE: 01/04/2004
TIME: 10:35:12

Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\01042004\J627253.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:323; Line(s) 4858
Seq#:325; Line(s) 4896
Seq#:327; Line(s) 4934
Seq#:328; Line(s) 4955
Seq#:363; Line(s) 5501
Seq#:364; Line(s) 5518
Seq#:367; Line(s) 5563
Seq#:368; Line(s) 5580
Seq#:371; Line(s) 5625
Seq#:372; Line(s) 5642
Seq#:375; Line(s) 5687
Seq#:376; Line(s) 5704
Seq#:379; Line(s) 5749
Seq#:380; Line(s) 5766

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VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/10/627,253

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Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\01042004\J627253.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:85; N Pos. 11
Seq#:86; N Pos. 11
Seq#:97; N Pos. 11
Seq#:98; N Pos. 11
Seq#:103; N Pos. 11
Seq#:104; N Pos. 11
Seq#:229; N Pos. 11
Seq#:230; N Pos. 11
Seq#:241; N Pos. 11
Seq#:242; N Pos. 11
Seq#:265; N Pos. 11
Seq#:266; N Pos. 11
Seq#:359; N Pos. 11
Seq#:360; N Pos. 11
Seq#:363; N Pos. 47
Seq#:364; N Pos. 11
Seq#:367; N Pos. 44
Seq#:368; N Pos. 11
Seq#:371; N Pos. 41
Seq#:372; N Pos. 11
Seq#:375; N Pos. 38
Seq#:376; N Pos. 11
Seq#:379; N Pos. 29
Seq#:380; N Pos. 11
Seq#:383; N Pos. 11
Seq#:384; N Pos. 11
Seq#:395; N Pos. 11
Seq#:396; N Pos. 11
Seq#:402; Xaa Pos. 6
Seq#:404; Xaa Pos. 6

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/627,253

DATE: 01/04/2004

TIME: 10:35:12

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\01042004\J627253.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1299 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:85
L:1299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
L:1316 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:86
L:1316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0
L:1479 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:97
L:1479 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:0
L:1496 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:98
L:1496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:0
L:1568 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:103
L:1568 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:0
L:1585 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:104
L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104 after pos.:0
L:3451 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:229
L:3451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:229 after pos.:0
L:3468 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:230
L:3468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:230 after pos.:0
L:3631 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:241
L:3631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:241 after pos.:0
L:3648 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:242
L:3648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:242 after pos.:0
L:3991 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:265
L:3991 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:265 after pos.:0
L:4008 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:266
L:4008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:266 after pos.:0
L:5439 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:359
L:5439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:359 after pos.:0
L:5456 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:360
L:5456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:360 after pos.:0
L:5501 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:363
L:5501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:363 after pos.:0
L:5501 M:112 C: (48) String data converted to lower case,
L:5518 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:364
L:5518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:364 after pos.:0
L:5518 M:112 C: (48) String data converted to lower case,
L:5563 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:367
L:5563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:367 after pos.:0
L:5563 M:112 C: (48) String data converted to lower case,
L:5580 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:368
L:5580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:368 after pos.:0
L:5580 M:112 C: (48) String data converted to lower case,
L:5625 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:371
L:5625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:371 after pos.:0
L:5625 M:254 E: No. of Bases conflict, LENGTH:Input:52 Counted:51 SEQ:371 ✓
L:5625 M:112 C: (48) String data converted to lower case,
L:5625 M:252 E: No. of Seq. differs, <211> LENGTH:Input:52 Found:51 SEQ:371
L:5642 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:372
L:5642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:372 after pos.:0

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/627,253

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Input Set : A:\PTO.FG.txt

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L:5642 M:254 E: No. of Bases conflict, LENGTH:Input:52 Counted:51 SEQ:372
 L:5642 M:112 C: (48) String data converted to lower case,
 L:5642 M:252 E: No. of Seq. differs, <211> LENGTH:Input:52 Found:51 SEQ:372
 L:5687 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:375
 L:5687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:375 after pos.:0
 L:5687 M:112 C: (48) String data converted to lower case,
 L:5704 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:376
 L:5704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:376 after pos.:0
 L:5704 M:112 C: (48) String data converted to lower case,
 L:5749 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:379
 L:5749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:379 after pos.:0
 L:5749 M:112 C: (48) String data converted to lower case,
 L:5766 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:380
 L:5766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:380 after pos.:0
 L:5766 M:112 C: (48) String data converted to lower case,
 L:5811 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:383
 L:5811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:383 after pos.:0
 L:5828 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:384
 L:5828 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:384 after pos.:0
 L:5998 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:395
 L:5998 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:395 after pos.:0
 L:6015 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:396
 L:6015 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:396 after pos.:0
 L:6109 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:402
 L:6109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:402 after pos.:0
 L:6142 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:404
 L:6142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:404 after pos.:0
 L:6164 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
 L:6166 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:405
 L:6166 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
 L:6167 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:405
 L:6167 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
 L:6169 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:405
 L:6169 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1
 L:6178 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:405